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EXAMINER

WEIDNER, TIMOTHY J

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/788,776

Applicant(s)

WIEGAND, THOMAS

Examiner

Timothy Weidner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892) \_\_\_\_\_
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/28/04 \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the order of removable and non-removable data packets as described in claims 9, 15, 19, and 20, each access unit comprising at least one non-removable data packet as in claim 10, and the reference number associated with a removable data packet and other data packets as in claims 7, 15, and 16, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The "reference number" referred to in claim 7 – lines 20 and 22, claim 15 – lines 9, 11, and 16, and claim 16 – lines 24 and 26.

The disclosure is objected to because of the following informalities: the word "remainder" is incorrectly spelled as "reminder" throughout the specification.

Appropriate correction is required.

### ***Claim Objections***

Claims 12, 27, and 30 are objected to because of the following informalities: "reminder" should be spelled "remainder". Further, "the bit stream" of lines 22, 2, and 31 respectively should be "the data stream" for consistent terminology. Appropriate correction is required.

Claim 13 is objected to because of the following informalities: "removable data packet" of line 27 should be "removable data packet type" for consistent terminology. Appropriate correction is required.

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Claim 19 is objected to because of the following informalities: claim cannot depend from itself, and is taken to depend from claim 18. Appropriate correction is required.

Claim 20 is objected to because of the following informalities: claim appears more appropriately dependent from claim 18, and will be examined as such. Further, incorrect spelling "proceeding" in line 26 should be "preceding." Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 25 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Applicant claims a data stream which does not fall into one of the four statutory categories of invention, i.e. it is not a process, machine, manufacture, or composition of matter. Invention appears directed to non-functional descriptive material.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6, 8, 9, 11-14, 17-19, and 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (U.S. 5,140,417, herein "Tanaka") in view of Herrmann (U.S. 6,522,651 B2).

Regarding claims 1, 26, and 29, Tanaka teaches an apparatus and method for coding an information signal, the apparatus comprising: means for processing the information signal in order to obtain data packets (column 3, lines 30-31; "sending terminal for packaging digital video data into a cell"), each data packet being of a data packet type of a predetermined set of data packet types (column 3, lines 33-42, lines 66-68; "higher priority ... lower priority"), at least one of the data packet types being a removable data packet type (column 3, lines 49-54; "if cell discard is demanded during transmission, cells other than the one composed with the first group are discarded"); and means for arranging the data packets into a data stream (column 5, lines 11-14; "sequential number providing means") so that the data stream comprises access units of consecutive data packets (column 10, lines 25-35; "a packet of data ... is segmented ... indicating the relationship between that cell and the adjacent one"), so that the data packets within each access unit are arranged in accordance with a predetermined order

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among the data packet types (column 11, lines 42-43; "the packet including the discarded cell consists only of lower priority cells"), wherein the means for processing and the means for arranging are adapted so that even when a data packet of the removable data packet type is removed from the data stream, borders between successive access units are detectable from the data stream by use of the predetermined order (column 10, lines 55-58; column 11, lines 35-36; "A2 is analyzed ... whereby it is judged whether the cell is leading the packet or not and whether any cell has been discarded" where "the controlling section judges which packet the discarded cell belonged to").

However, Tanaka does not teach the data stream comprises consecutive access units. Herrmann, which is in the same field of endeavor, teaches the data stream comprises consecutive access units (column 2, lines 32-40; "time stamped Access Units of the Elementary Streams") for the purpose of encapsulating MPEG-4 data into the transport packets of ATM networks (column 1, lines 11-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the data stream of Tanaka comprise consecutive access units to encapsulate MPEG-4 data into the transport packets of ATM networks.

Further, for claim 29, Tanaka does not teach a computer program having instructions for performing, when running on a computer the method described above. Herrmann teaches an interface to the storage medium that allows to offer transport services matching a requested quality of service (column 2, lines 19-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the method taught by Tanaka as modified by Herrmann as a computer program having instructions for performing the method to offer transport services matching a requested quality of service.

Regarding claim 2, Tanaka teaches the means for processing and the means for arranging are adapted further so that even when a data packet of the removable data packet type is removed from the data stream, the data stream is still consistent with predetermined parsing rules for parsing the data stream (column 10, lines 38-42; lines 58-60; "The cell decomposing section ... for removing the headers and storing the data" and "If any cell has been discarded, the section outputs a discard notice instead of its data").

Regarding claim 3, Tanaka teaches each data packet comprises a type number being indicative of which data packet type same data packet is (column 10, lines 6-7, lines 12-15; "The ATM cell header has an ... area indicating its priority level ... one bit is allocated for the priority level").

Regarding claim 4, Tanaka teaches the data packet of the removable data packet type further comprises payload data (column 10, lines 17-18; "the cell bearing the data of the memory is given lower priority").

Regarding claim 5, Tanaka teaches all data packet types whose data packets are not absolutely necessary for retrieval of the information signal are removable data packet types (column 3, lines 36-38; column 10, lines 13-15; "second group of

components which would cause little damage even if discarded" where "only one bit is allocated ... only two levels are written").

Regarding claim 6, Tanaka teaches at least one removable data packet type is a negligible data packet type, with data packets of that type not being necessary for retrieval of the information signal from the data stream (column 3, lines 36-38; column 10, lines 13-15; "second group of components which would cause little damage even if discarded").

Regarding claim 8, Tanaka teaches the predetermined set of data packet types further comprises at least one non-removable data packet type (column 3, lines 65-67; "a higher priority regarding cell discard prohibition").

Regarding claim 9, Tanaka teaches the predetermined order at least defines as to whether data packets of the removable data packet type have to follow data packets of the non-removable data packet type, as in the instant invention alternative, within an access unit (column 14, lines 41-45).

Regarding claim 11, Herrmann teaches each access unit is assigned to a different time portion of the information signal (column 2, lines 32-40; "time stamped Access Units of the Elementary Streams") for the purpose of encapsulating MPEG-4 data into the transport packets of ATM networks (column 1, lines 11-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the information signal and access units of Tanaka as modified by Herrmann further have each access unit assigned to a different time portion

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of the information signal to encapsulate MPEG-4 data into the transport packets of ATM networks.

Regarding claims 12, 27, and 30, Tanaka teaches an apparatus and method for converting a data stream representing a coded version of an information signal from a first performance level to a second performance level, the data stream comprising access units of consecutive data packets (column 10, lines 25-35; "a packet of data ... is segmented ... indicating the relationship between that cell and the adjacent one"), each data packet being of a data packet type of a predetermined set of data packet types (column 3, lines 33-42, lines 66-68; "higher priority ... lower priority"), at least one of the data packet types being a removable data packet type (column 3, lines 49-54; "if cell discard is demanded during transmission, cells other than the one composed with the first group are discarded"), and the data packets within each access unit being arranged in accordance to a predetermined order among the data packet types (column 11, lines 42-43; "the packet including the discarded cell consists only of lower priority cells") such that even when a data packet of the removable data packet type is removed from the data stream, borders between successive access units are detectable from the data stream by use of the predetermined order (column 10, lines 55-58; column 11, lines 35-36; "A2 is analyzed ... whereby it is judged whether the cell is leading the packet or not and whether any cell has been discarded" where "the controlling section judges which packet the discarded cell belonged to"), the apparatus comprising means for removing at least one data block of the removable data packet type from the bit stream without manipulating the remainder of the data stream (column 3, lines 49-51; "if

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cell discard is demanded during transmission, cells other than the one composed with the first group are discarded").

However, Tanaka does not teach the data stream comprises consecutive access units. Herrmann, which is in the same field of endeavor, teaches the data stream comprises consecutive access units (column 2, lines 32-40; "time stamped Access Units of the Elementary Streams") for the purpose of encapsulating MPEG-4 data into the transport packets of ATM networks (column 1, lines 11-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the data stream of Tanaka comprise consecutive access units to encapsulate MPEG-4 data into the transport packets of ATM networks.

Further, for claim 30, Tanaka does not teach a computer program having instructions for performing, when running on a computer the method described above. Herrmann teaches an interface to the storage medium that allows to offer transport services matching a requested quality of service (column 2, lines 19-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the method taught by Tanaka as modified by Herrmann as a computer program having instructions for performing the method to offer transport services matching a requested quality of service.

Regarding claim 13, Tanaka teaches the means for removing is adapted to remove each data packet of a chosen one of the at least one removable data packet (column 6, lines 13-15; column 16, lines 55-59; "if a transmission channel is full ... lower priority cells are discarded").

Regarding claims 14 and 21, Tanaka teaches each data packet comprises a type number indicating of which data packet type same data packet is (column 10, lines 6-7, lines 12-15; "The ATM cell header has an ... area indicating its priority level ... one bit is allocated for the priority level"), and the apparatus further comprising an input for receiving the data stream, data packet by data packet (column 5, lines 15-17; "cell receiving terminal for receiving video cells"); and means for investigating the type number of a current data packet in order to obtain the data packet type of the current data packet (column 5, lines 20-22; "priority level judging means; cell classifying means ... in accordance with the priority levels").

Regarding claim 17, Tanaka teaches the first performance level is higher than the second performance level (column 11, lines 43-46; "the resolution of the moving picture is lowered") and the means for removing is adapted to discard the at least one data packet (column 3, lines 49-51; "if cell discard is demanded during transmission, cells other than the one composed with the first group are discarded").

Regarding claims 18, 28, and 31, Tanaka teaches an apparatus and method for decoding a data stream representing a coded version of an information signal, the data stream comprising access units of consecutive data packets (column 10, lines 25-35; "a packet of data ... is segmented ... indicating the relationship between that cell and the adjacent one"), each data packet being of a data packet type of a predetermined set of data packet types (column 3, lines 33-42, lines 66-68; "higher priority ... lower priority"), at least one of the data packet types being a removable data packet type (column 3, lines 49-54; "if cell discard is demanded during transmission, cells other than the one

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composed with the first group are discarded”), and the data packets within each access unit being arranged in accordance to a predetermined order among the data packet types (column 11, lines 42-43; “the packet including the discarded cell consists only of lower priority cells”) such that even when a data packet of the removable data packet type is removed from the data stream, borders between successive access units are detectable from the data stream by use of the predetermined order (column 10, lines 55-58; column 11, lines 35-36; “A2 is analyzed ... whereby it is judged whether the cell is leading the packet or not and whether any cell has been discarded” where “the controlling section judges which packet the discarded cell belonged to”), the apparatus comprising means for detecting a border between successive access units by use of the predetermined order (column 10, lines 55-58; column 11, lines 35-36; “A2 is analyzed ... whereby it is judged whether the cell is leading the packet or not and whether any cell has been discarded” where “the controlling section judges which packet the discarded cell belonged to”); and means for decoding the access units (column 10, lines 64-68).

However, Tanaka does not teach the data stream comprises consecutive access units. Herrmann, which is in the same field of endeavor, teaches the data stream comprises consecutive access units (column 2, lines 32-40; “time stamped Access Units of the Elementary Streams”) for the purpose of encapsulating MPEG-4 data into the transport packets of ATM networks (column 1, lines 11-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the data stream of Tanaka comprise consecutive access units to encapsulate MPEG-4 data into the transport packets of ATM networks.

Further, for claim 31, Tanaka does not teach a computer program having instructions for performing, when running on a computer the method described above. Herrmann teaches an interface to the storage medium that allows to offer transport services matching a requested quality of service (column 2, lines 19-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the method taught by Tanaka as modified by Herrmann as a computer program having instructions for performing the method to offer transport services matching a requested quality of service.

Regarding claim 19, Tanaka teaches the predetermined set of data packet types further comprises at least one non-removable data packet type (column 3, lines 65-67; "a higher priority regarding cell discard prohibition"), and the predetermined order at least defines as to whether the data packets of the removable data packet type have to follow data packets of the non-removable data packet type, as in the instant invention alternative (column 14, lines 41-45), and wherein the means for detecting comprises means for detecting the beginning of a new access unit (column 10, lines 55-58; column 11, lines 35-36; "A2 is analyzed ... whereby it is judged whether the cell is leading the packet or not and whether any cell has been discarded" where "the controlling section judges which packet the discarded cell belonged to") if, as in the instant invention alternative, a preceding data packet is of a non-removable data packet type and a

current data packet is of the removable data packet type, and, in accordance with the predetermined order, data packets of the removable data packet type have to precede data packets of the non-removable data packet type (column 14, lines 41-45).

Regarding claim 22, Tanaka teaches the information signal is a video signal as in the instant invention alternative (column 1, lines 8-11).

Regarding claim 23, Tanaka teaches each access unit belongs to a picture from a video (column 5, lines 38-41; "moving/still picture judgment data").

Regarding claim 24, Tanaka teaches the apparatus further comprising an input for receiving the data stream (column 5, lines 15-17; "cell receiving terminal for receiving video cells"); and a buffer for buffering the received data packets in the order of their arrival (column 14, lines 34-36, lines 41-45; "larger buffer memory is provided for the higher priority cells than for the lower priority cells" where order of arrival is specified as "the former cells arrive ... earlier than the latter cells") and discarding buffer data packets access unit-wise (column 16, lines 55-59; "the lower-priority cells from the buffer memory are discarded").

Regarding claim 25, Tanaka teaches a data stream representing a coded version of a video signal as in the instant invention alternative (column 1, lines 8-11), the data stream comprising access units of consecutive data packets (column 10, lines 25-35; "a packet of data ... is segmented ... indicating the relationship between that cell and the adjacent one"), each data packet being of a data packet type of a predetermined set of data packet types (column 3, lines 33-42, lines 66-68; "higher priority ... lower priority"), at least one of the data packet types being a removable data packet type (column 3,

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lines 49-54; "if cell discard is demanded during transmission, cells other than the one composed with the first group are discarded"), and the data packets within each access unit being arranged in accordance to a predetermined order among the data packet types (column 11, lines 42-43; "the packet including the discarded cell consists only of lower priority cells") such that even when a data packet of the removable data packet type is removed from the data stream, borders between successive access units are detectable from the data stream by use of the predetermined order (column 10, lines 55-58; column 11, lines 35-36; "A2 is analyzed ... whereby it is judged whether the cell is leading the packet or not and whether any cell has been discarded" where "the controlling section judges which packet the discarded cell belonged to")

However, Tanaka does not teach the data stream comprises consecutive access units. Herrmann, which is in the same field of endeavor, teaches the data stream comprises consecutive access units (column 2, lines 32-40; "time stamped Access Units of the Elementary Streams") for the purpose of encapsulating MPEG-4 data into the transport packets of ATM networks (column 1, lines 11-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the data stream of Tanaka comprise consecutive access units to encapsulate MPEG-4 data into the transport packets of ATM networks.

Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (U.S. 5,140,417, herein "Tanaka") in view of Herrmann (U.S. 6,522,651 B2) as applied to claim 1 above, and further in view of Yamaguchi et al. (U.S. 6,674,477 B1, herein "Yamaguchi").

Regarding claim 7, Tanaka teaches the at least one removable data packet type, but not that it is an essential data packet type, with data packets of that type being necessary for retrieval of the information signal from the data stream, and being associated with a reference number, wherein at least one data packet of the other data packets comprises the reference number. Yamaguchi, which is in the same field of endeavor, teaches data packets of the removable type (column 1, lines 43-50; column 3, lines 47-62; "control information ... independently transmitted") being necessary for retrieval of the information signal from the data stream (column 3, lines 60-62; "controlling the processing of the terminal side"), and being associated with a reference number, wherein at least one data packet of the other data packets comprises the reference number (column 4, lines 1-6; "control information is added not only to the head packet ... but also to a middle packet") for the purpose of transmitting and controlling pictures under the environment in which data and control information are independently transmitted on multiple transmission lines (column 1, lines 43-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the removable data packet type of Tanaka for necessary retrieval of the information signal from the data stream, and associate with it a reference number wherein at least one data packet of the other data packets comprises the reference number to transmit and control pictures under the environment in which data and control information are independently transmitted on multiple transmission lines.

Regarding claim 10, Tanaka teaches the means for processing, means for arranging, and access units, but does not teach they are adapted so that each access

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unit comprises at least one non-removable data packet. Yamaguchi teaches each access unit comprises at least one non-removable data packet (column 4, lines 1-6; "control information is added not only to the head packet ... but also to a middle packet") for the purpose of transmitting and controlling pictures under the environment in which data and control information are independently transmitted on multiple transmission lines (column 1, lines 43-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the means for processing and means for arranging of Tanaka so that each access unit comprises at least one non-removable data packet to transmit and control pictures under the environment in which data and control information are independently transmitted on multiple transmission lines.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (U.S. 5,140,417, herein "Tanaka") in view of Herrmann (U.S. 6,522,651 B2) as applied to claim 12 above, and further in view of Yamaguchi et al. (U.S. 6,674,477 B1, herein "Yamaguchi").

Regarding claim 15, Tanaka teaches the at least one removable data packet type, and a means for inserting the data packet of the at least one removable data packet type at another position within the data stream in an access unit preceding an access unit (column 14, lines 41-45), but does not teach the remaining features of the claim. Yamaguchi, which is in the same field of endeavor, teaches the at least one removable data packet type (column 1, lines 43-50; column 3, lines 47-62; "control information ... independently transmitted") is an essential data packet type, with data

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packets of that type being necessary for retrieval of the information signal from the data stream (column 3, lines 60-62; "controlling the processing of the terminal side"), and being associated with a reference number, wherein at least one data packet of the other data packets comprises the reference number (column 4, lines 1-6; "control information is added not only to the head packet ... but also to a middle packet"), and wherein the succeeding access unit comprising the data packet comprising the reference number with which the data packet of the removable data packet type is associated (column 4, lines 1-6; "control information is added not only to the head packet ... but also to a middle packet") for the purpose of transmitting and controlling pictures under the environment in which data and control information are independently transmitted on multiple transmission lines (column 1, lines 43-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the removable data packet type at another position within the data stream in an access unit preceding an access unit comprising the data packet comprising the reference number with which the data packet of the removable data packet type is associated to transmit and control pictures under the environment in which data and control information are independently transmitted on multiple transmission lines.

Regarding claim 16, Tanaka teaches the at least one removable data packet type and transmission of the data stream having the at least one data packet removed via a first transmission link to a receiver (column 16, lines 51-59; "a switch sends out the selected cell ... if the transmission channel is full ... lower priority cells are discarded"),

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but not that it is an essential data packet type and transmission of it via a second transmission link to a receiver. Yamaguchi teaches the at least one removable data packet type (column 1, lines 43-50; column 3, lines 47-62; "control information ... independently transmitted") is an essential data packet type, with data packets of that type being necessary for retrieval of the information signal from the data stream (column 3, lines 60-62; "controlling the processing of the terminal side"), and being associated with a reference number, wherein at least one data packet of the other data packets comprises the reference number (column 4, lines 1-6; "control information is added not only to the head packet ... but also to a middle packet"), and wherein the apparatus further comprises means for transmitting the at least one data packet via a second transmission link to the receiver, the first transmission link being different from the second transmission link (column 1, lines 43-50; column 3, lines 47-62; "control information ... independently transmitted" where transmission on more than one transmission line is disclosed) for the purpose of transmitting and controlling pictures under the environment in which data and control information are independently transmitted on multiple transmission lines (column 1, lines 43-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the means for transmitting the data stream having the at least one data packet removed via a first transmission link to a receiver and the removable data packet type of Tanaka for necessary retrieval of the information signal from the data stream, associate with it a reference number wherein at least one data packet of the other data packets comprises the reference number, and means for

transmitting the at least one data packet via a second transmission link to the receiver, the first transmission link being different from the second transmission link, to transmit and control pictures under the environment in which data and control information are independently transmitted on multiple transmission lines (column 1, lines 43-50).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (U.S. 5,140,417, herein "Tanaka") in view of Herrmann (U.S. 6,522,651 B2) as applied to claim 18 above, and further in view of Yamaguchi et al. (U.S. 6,674,477 B1, herein "Yamaguchi").

Regarding claim 20, Tanaka teaches at least a second removable data packet type for which the predetermined order defines that data packets of that type have to succeed data packets of the non-removable data packet type (column 14, lines 41-45), but does not teach the remaining features of the claim. Yamaguchi, which is in the same field of endeavor, teaches at least a first removable data packet type for which the predetermined order defines that data packets of that type have to precede data packets of the non-removable data packet type (column 4, lines 1-6; "control information is added not only to the head packet ... but also to a middle packet"), and wherein the means for detecting the beginning of a new access unit is adapted to detect the beginning of a new access unit further if the preceding data packet is of the second removable data packet type and the current data packet is of the first removable data packet type (column 1, lines 43-50; column 14, lines 15-23; "priorities are not changed before the head of the next accessible picture frame appears" where all packets can be considered removable since they are transmitted independently) for the purpose of

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transmitting and controlling pictures under the environment in which data and control information are independently transmitted on multiple transmission lines (column 1, lines 43-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to in addition to the removable data packet type succeeding data packets of Tanaka to define other removable data packet types, where another type precedes non-removable data packet types, and detect the beginning of a new access unit if the preceding data packet is of the second removable data packet type and the current data packet is of the first removable data packet type to transmit and control pictures under the environment in which data and control information are independently transmitted on multiple transmission lines.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsunoda et al. (U.S. 6,574,243 B2) disclose real time communications of musical tone information. Nakano et al. (U.S. 6,574,226 B1) disclose code fields attached to packet segments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Weidner whose telephone number is (571) 270-1825. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Garber can be reached on (571) 272-2194. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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TJW

A handwritten signature in black ink, appearing to read "Xuewen Pan". The signature is fluid and cursive, with a long horizontal stroke extending to the right.